

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/01372

## A. CLASSIFICATION OF SUBJECT MATTER

IPC: G10D 13/02 (2006.01)

USPC: 84/421

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 84/421

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
EAST

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6610916 A (TORREZ) 26 AUGUST 2003 (26.08.2003), ALL	1-3, 10-16, 22-28, 34-39, 42, 44-46, AND 48
Y	US 5929355 A (ADINOLFI) 27 JUNE 1999 (26.06.1999), ALL	1-3, 10-16, 22-28, 34-39, 42, 44-46, and 48
Y	US 4,684,091 A (MORESCHI) 04 AUGUST 1987 (04.08.1987), ALL	1-3, 10-16, 22-28, 34-39, 42, 44-46, and 48

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search  
04 April 2006 (04.04.2006)

Date of mailing of the international search report

04 MAY 2006

Name and mailing address of the ISA/US  
Mail Stop PCT, Attn: ISA/US  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
Facsimile No. (571) 273-3201

Authorized officer *Chonelia J. Bell*  
Kim R. Lockett  
Telephone No. 308-308-1782

Sheet No. ....

4

**Box No. VIII (iv) DECLARATION: INVENTORSHIP** (only for the purposes of the designation of the United States of America)  
 The declaration must conform to the following standard wording, provided for in Section 214: see Notes to Boxes Nos. I III, I III (i) to (v) (in general) and the specific Notes to Box No. I III (iv). If this Box is not used, this sheet should not be included in the request.

Declaration of Inventorship (Rules 4.17(iv) and 53(a)(a)(iv))  
 for the purposes of the designation of the United States of America:

I hereby declare that I believe I am the original, first and sole (if only one inventor is listed below) or joint (if more than one inventor is listed below) inventor of the subject matter which is claimed and for which a patent is sought.

This declaration is directed to the international application of which it forms a part (if filing declaration with application).

This declaration is directed to international application No. PCT..... (if furnishing declaration pursuant to Rule 26(iv)). Entitled: Instrument Support Apparatus with Internal Cabling

I hereby declare that my residence, mailing address, and citizenship are as stated next to my name.

I hereby state that I have reviewed and understood the contents of the above-identified international application, including the claims of said application. I have identified in the request of said application, in compliance with PCT Rule 4.10, any claim to foreign priority, and I have identified below, under the heading "Prior Applications," by application number, country or Member of the World Trade Organization, day, month and year of filing, any application for a patent or inventor's certificate filed in a country other than the United States of America, including any PCT international application designating at least one country other than the United States of America, having a filing date before that of the application on which foreign priority is claimed.

Prior Applications: .....

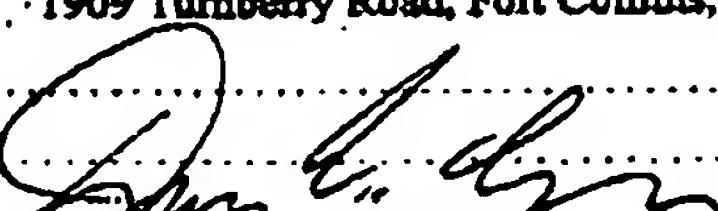
I hereby acknowledge the duty to disclose information that is known by me to be material to patentability as defined by 37 C.F.R. § 1.56, including for continuation-in-part applications, material information which becomes available between the filing date of the prior application and the PCT international filing date of the continuation-in-part application.

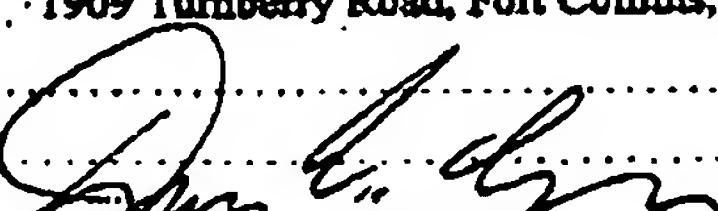
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that wilful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such wilful false statements may jeopardize the validity of the application or any patent issued thereon.

Name: EASON, Donald H.

Residence: 1909 Turnberry Road, Fort Collins, CO 80524, US  
 (city and either US state, if applicable, or country)

Mailing Address: 1909 Turnberry Road, Fort Collins, CO 80524, US

Citizenship: US 

Inventor's Signature:   
 (If not contained in the request, or if declaration is corrected or added under Rule 26(iv) after the filing of the international application. The signature must be that of the inventor, not that of the agent)

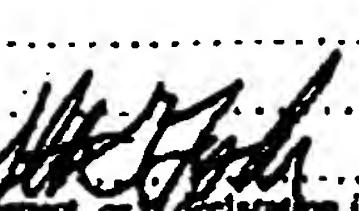
Date: 1-14-2005

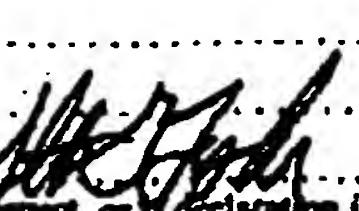
(of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26(iv) after the filing of the international application)

Name: FISHER, Steven Grant

Residence: 17375 Golden Maple Lane, Yorba Linda, CA 92888, US  
 (city and either US state, if applicable, or country)

Mailing Address: Roland Corporation U.S., 5100 S. Eastern Avenue, Los Angeles, CA 90040, US

Citizenship: US 

Inventor's Signature:   
 (If not contained in the request, or if declaration is corrected or added under Rule 26(iv) after the filing of the international application. The signature must be that of the inventor, not that of the agent)

Date: 1/19/05

(of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26(iv) after the filing of the international application)

This declaration is continued on the following sheet, "Continuation of Box No. VIII (iv)".

**PATENT COOPERATION TREATY**  
**PCT**  
**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference <b>PCT-2356</b>	<b>FOR FURTHER ACTION</b>	See item 4 below
International application No. <b>PCT/US2005/001372</b>	International filing date ( <i>day/month/year</i> ) <b>14 January 2005 (14.01.2005)</b>	Priority date ( <i>day/month/year</i> ) <b>14 January 2004 (14.01.2004)</b>
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant <b>ULTIMATE SUPPORT SYSTEMS, INC.</b>		

<p>1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).</p> <p>2. This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p>In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.</p>																
<p>3. This report contains indications relating to the following items:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 85%;">Box No. I Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. II Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VI Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VII Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VIII Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I Basis of the report	<input type="checkbox"/>	Box No. II Priority	<input type="checkbox"/>	Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI Certain documents cited	<input type="checkbox"/>	Box No. VII Certain defects in the international application	<input type="checkbox"/>	Box No. VIII Certain observations on the international application
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<input type="checkbox"/>	Box No. II Priority															
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<input type="checkbox"/>	Box No. VII Certain defects in the international application															
<input type="checkbox"/>	Box No. VIII Certain observations on the international application															
<p>4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis.2).</p>																

<p>Date of issuance of this report <b>17 July 2006 (17.07.2006)</b></p>	<p>Authorized officer <b>Ellen Moyse</b> e-mail: pt05@wipo.int</p>
<p>The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p>	<p>Facsimile No. +41 22 338 82 70</p>

**PATENT COOPERATION TREATY**

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:  
ALFRED K. WIEDMANN  
SANTANGELO LAW OFFICES, P.C.  
125 SOUTH HOWES, THIRD FLOOR  
FORT COLLINS, CO 80521

REC'D 08 MAY 2006

**PCT** WIPO PCT

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

(PCT Rule 43bis.1)

		Date of mailing (day/month/year)	04 MAY 2006
Applicant's or agent's file reference  PCT-2356		<b>FOR FURTHER ACTION</b> See paragraph 2 below	
International application No.  PCT/US05/01372	International filing date (day/month/year)  14 January 2005 (14.01.2005)	Priority date (day/month/year)  14 January 2004 (14.01.2004)	
International Patent Classification (IPC) or both national classification and IPC  IPC: G10D 13/02( 2006.01) USPC: 84/421			
Applicant  ROLAND CORPORATION			

1. This opinion contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the opinion
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US  Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450  Facsimile No. (571) 273-3201	Date of completion of this opinion  04 April 2006 (04.04.2006)	Authorized officer <i>Rhonda for B&amp;L</i> Kim R. Lockett  Telephone No. 308-308-1782
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Form PCT/ISA/237 (cover sheet) (April 2005)

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US05/01372

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:  
 the international application in the language in which it was filed  
 a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
 a sequence listing  
 table(s) related to the sequence listing
  - b. format of material  
 on paper  
 in electronic form
  - c. time of filing/furnishing  
 contained in the international application as filed.  
 filed together with the international application in electronic form.  
 furnished subsequently to this Authority for the purposes of search.
3.  In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/US05/01372

Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>4-9, 17-21, 29-33, 40, 41, 43, and 47</u>	YES
	Claims <u>1-3, 10-16, 22-28, 34-39, 42, 44-46, and 48</u>	NO
Inventive step (IS)	Claims <u>4-9, 17-21, 29-33, 40, 41, 43, and 47</u>	YES
	Claims <u>1-3, 10-16, 22-28, 34-29, 44-46, and 48</u>	NO
Industrial applicability (IA)	Claims <u>1-48</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and explanations:

Claims 1-3, 10-16, 22-28, 34-39, 42, 44-46, and 48 lack novelty under PCT Article 33(2) as being anticipated by Torrez. Torrez discloses the use of a support apparatus comprising at least item support rails, each supported by at least two rail support legs that are each coupled thereto by a coupler, wherein each of the three rail support legs has a lower end adapted to rest on a lower supporting surface, when at least one of the couplers is a pivot coupler that pivotally couples on the item support rails to one of the rail support legs and enables rotatable motion of the item support rail about a substantially vertical axis, and wherein a cable passed through at least a portion of at least one of the at least two item support rails. Torrez further discloses the use of a pivot coupler (see figures 1a-1e).

**PATENT COOPERATION TREATY**

From the  
INTERNATIONAL SEARCHING AUTHORITY

REC'D 08 MAY 2006

**PCT** WFO PCT

To:  
ALFRED K. WIEDMANN  
SANTANGELO LAW OFFICES, P.C.  
125 SOUTH HOWES, THIRD FLOOR  
FORT COLLINS, CO 80521

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

(PCT Rule 43bis.1)

		Date of mailing (day/month/year)	04 MAY 2006
Applicant's or agent's file reference  PCT-2356		<b>FOR FURTHER ACTION</b> See paragraph 2 below	
International application No.  PCT/US05/01372	International filing date (day/month/year)  14 January 2005 (14.01.2005)	Priority date (day/month/year)  14 January 2004 (14.01.2004)	
International Patent Classification (IPC) or both national classification and IPC  IPC: G10D 13/02( 2006.01) USPC: 84/421			
Applicant  ROLAND CORPORATION			

1. This opinion contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the opinion
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
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<input type="checkbox"/>	Box No. VI	Certain documents cited
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2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US  Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450  Facsimile No. (571) 273-3201	Date of completion of this opinion  04 April 2006 (04.04.2006)	Authorized officer <i>Rhonda for Bed</i> Kim R. Lockett  Telephone No. 308-308-1782
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Form PCT/ISA/237 (cover sheet) (April 2005)

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US05/01372

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:

the international application in the language in which it was filed  
 a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

a sequence listing  
 table(s) related to the sequence listing

b. format of material

on paper  
 in electronic form

c. time of filing/furnishing

contained in the international application as filed.  
 filed together with the international application in electronic form.  
 furnished subsequently to this Authority for the purposes of search.

3.  In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/US05/01372

Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>4-9, 17-21, 29-33, 40, 41, 43, and 47</u>	YES
	Claims <u>1-3, 10-16, 22-28, 34-39, 42, 44-46, and 48</u>	NO
Inventive step (IS)	Claims <u>4-9, 17-21, 29-33, 40, 41, 43, and 47</u>	YES
	Claims <u>1-3, 10-16, 22-28, 34-29, 44-46, and 48</u>	NO
Industrial applicability (IA)	Claims <u>1-48</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and explanations:

Claims 1-3, 10-16, 22-28, 34-39, 42, 44-46, and 48 lack novelty under PCT Article 33(2) as being anticipated by Torrez. Torrez discloses the use of a support apparatus comprising at least item support rails, each supported by at least two rail support legs that are each coupled thereto by a coupler, wherein each of the three rail support legs has a lower end adapted to rest on a lower supporting surface, when at least one of the couplers is a pivot coupler that pivotally couples on the item support rails to one of the rail support legs and enables rotatable motion of the item support rail about a substantially vertical axis, and wherein a cable passed through at least a portion of at least one of the at least two item support rails. Torrez further discloses the use of a pivot coupler (see figures 1a-1e).